What is claimed is:

1. A method of welding a plastic ferrule to an optical fiber comprising the steps of:

providing the combination of a plastic jacketed optical fiber and a plastic ferrule in such physical arrangement that an outer circumferential surface of the plastic fiber jacket is in juxtaposed relationship to an inner circumferential surface of the plastic ferrule;

providing a layer of material between and in contact with each of said juxtaposed jacket and ferrule which material is substantially more absorptive to radiation at a predetermined wavelength than the plastic materials of both the jacket and ferrule; and

irradiating the combination substantially at said predetermined wavelength to create a weld pool which includes said material and the adjacent materials of said jacket and ferrule.

- 2. The method of welding defined in claim 1 wherein the step of irradiating the combination creates a weld pool which includes said material and in substantially equal amounts and to substantially equal depths in the materials of said jacket and ferrule.
- 3. The method of welding defined in claim 1 wherein the material of the ferrule is selected so as to be substantially transparent to the irradiation of said predetermined wavelength.

4. In combination:

an optical fiber having a polymeric layer circumferentially disposed therearound; and

extending circumferentially around said polymeric circumferential layer, a second layer of transitory material which is substantially more absorptive to radiation of a predetermined wavelength than the material of said polymer layer.